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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of: Mark McCulloch

For: METHOD AND APPARATUS FOR TRAVEL INFORMATION COLLECTION
AND MANAGEMENT

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir.

PATENT APPLICATION TRANSMITTAL LETTER

Transmitted herewith for filing, please find the following:

__X__   Specification, claims and abstract of the above-referenced patent application (total of 42 pages)

__X__   _3_ sheet(s) of drawing(s) (__formal/ _X_ informal).

___   Combined Declaration and Power of Attorney (Signed by Inventor).

___   An Assignment of the invention to: _

___   A verified statement claiming small entity status under 37 CFR 1.9 and 1.27.

__X__   Other (specify): Acknowledgment postcard .

___   This application is a:

> ___   Continuation
> ___   Divisional
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In the event that a petition to extend time under 37 CFR 1.136 is necessary in the parent application to maintain copendency for this application, a petition for an extension of the necessary time to maintain copendency is hereby requested for the parent application and the Commissioner is hereby authorized to debit our Account Number 10-0447 for the necessary fees.
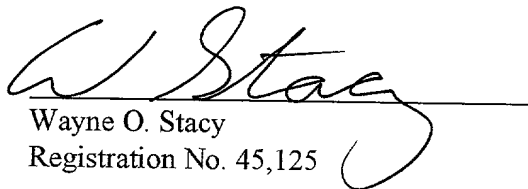
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BASIC FEE				$690
TOTAL CLAIMS	36-20	16	$18	$288
INDEPENDENT CLAIMS	5-3	1	$78	$156
MULTIPLE DEPENDENT CLAIM(S) PRESENTED			$260	
TOTAL FEES: _				$1134
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_   Any patent application processing fees under 37 CFR 1.17 and under 37 CFR 1.20(d).

_   The issue fee set in 37 CFR 1.18 at or before mailing of the Notice of Allowance, pursuant to 37 CFR 1.311(b).

_   Any filing fees under 37 CFR 1.16 including fees for presentation of extra claims.

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METHOD AND APPARATUS FOR TRANSPORTATION PLANNING AND LOGISTICAL MANAGEMENT

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to information collection and management systems, and in particular but not by way of limitation, to transportation planning and logistical management systems.

Background of the Invention

Existing transportation management systems suffer from significant drawbacks that make logistical planning difficult and often unnecessarily time

consuming and expensive. For example, existing electronic travel products offer travelers little more than an attractive graphical user interface ("GUI") on top of a decades-old Global Distribution System ("GDS")

5   that was created merely to distribute a significant amount of perishable airline data to travel agencies. That is, existing electronic travel systems offer only a user friendly graphically interface for interacting with an antiquated data management system.

10   In particular, these existing electronic travel systems require a traveler to know a great deal of information prior to making travel arrangements. Travelers, for example, are expected to know which airports could be appropriate for particular

15   destinations and which flight arrival times are available at each appropriate airport. Moreover, travelers are expected to know which flight arrival times are early enough to meet the traveler's particular needs. However, to know which flight times

20   are appropriate, the traveler must also know the driving distance and/or driving time between the airport(s) and the traveler's destination.

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Because of this lack of information made available through existing systems, travelers must research travel information prior to actually using those systems. Unfortunately, travel information is

5   presently spread throughout various sources varying from electronic sources to co-workers, to friends and business contacts. Thus, presently there is no easy and efficient way to electronically make travel arrangements without significant independent research

10   prior to actually scheduling the travel. Moreover, corporations often unnecessarily waste money because their employees do not travel in the most efficient manner. That is, employees that schedule their own travel might overlook less expensive--but equally as

15   acceptable--options such as flying into San Jose rather than San Francisco for a meeting that is scheduled in Palo Alto.

Accordingly, a system and method are needed to overcome the deficiencies of existing systems as

20   described above and other deficiencies as recognized by those skilled in the art. In particular, a system and method are needed for accumulating, consolidating, and

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managing travel information to thereby make logistical planning simpler.

SUMMARY OF THE INVENTION

5   To remedy the deficiencies of existing systems and methods, the present invention provides a method and apparatus for travel information and other transportation information collection and logistical management. In particular, one embodiment of the

10   present invention provides an electronic method for managing transportation from an origin location. The method can include the steps of: receiving an activity indicator including an activity location and an activity start time; identifying at least a first

15   airport, the first airport being within a first threshold measurement of the activity location; and identifying at least a first departing flight associated with the at least the first airport, the identified at least a first departing flight associated

20   with a flight arrival time and being at least between the origin location and the at least the first airport; wherein the flight arrival time of the at least the

first identified departing flight is prior to the activity start time.

In another embodiment, each of the identified flights can be associated with a characteristic data

5   item. This embodiment could then include steps of: comparing the characteristic data item for each of the identified plurality of flights with a flight preference; and identifying each of the identified plurality of flights that corresponds with the flight

10   preference.

BRIEF DESCRIPTION OF THE DRAWINGS

A more complete understanding of the method and apparatus of the present invention may be obtained by reference to the following Detailed Description when

15   taken in conjunction with the accompanying Drawings wherein:

FIGURE 1 illustrates a system designed in accordance with the principles of the present invention;

20   FIGURE 2 is a flow chart demonstrating one embodiment of the operation of a travel management

system constructed in accordance with the principles of the present invention; and

FIGURE 3 illustrates an electronic scheduler usable to arrange travel in accordance with the principles of the present invention.

DETAILED DESCRIPTION

Although the present invention is open to various modifications and alternative constructions, a preferred exemplary embodiment that is shown in the drawings is described herein in detail. It is to be understood, however, that there is no intention to limit the invention to the particular forms disclosed. One skilled in the art can recognize that there are numerous modifications, equivalences and alternative constructions that fall within the spirit and scope of the invention as expressed in the claims.

Referring now to FIGURE 1, there is illustrated a system 100 for collecting, managing and dispersing travel information. The system 100 includes a logistical planning system 105 connected to a network 110 such as the Internet. The logistical planning system 105 can include at least one microprocessor 130

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and non-volatile storage such as storage device 135. Moreover, the logistical planning system 105 can be accessed by a user, such as user 115, through the network 110. Additionally, a wireless user, such as

5   wireless user 120, can access the logistical planning system 105 through the wireless network 125 and the network 110.

Still referring to FIGURE 1, user 115 and/or wireless user 120 can access the logistical planning

10   system 105 through, for example, a website or through any other type of interface. In response to being accessed by a user--through a website or otherwise--the logistical planning system 105 can retrieve information (e.g., personal preferences) for that particular user

15   from a storage element 135 or may request some information directly from the user.

Once the user has indicated the need to schedule a particular activity, e.g., a business meeting, the logistical planning system 105 can collect relevant

20   travel data, if required, from the GDS 140, which can be connected to the logistical planning system 105 by a network 150 or any other means. (This network 150 can be a separate and distinct network from the network

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110, or it can be the same network.) Additionally, the logistical planning system 105 may collect certain travel information from the provider 160 or from the storage element 135. For example, the logistical

5   planning system 105 could access a website for a car rental company to determine pricing and availability.

In one embodiment of the present invention, user 115 and/or wireless user 120 can include personal information managers (PIMs) and/or other computing

10   devices configured to integrate one or more of scheduling software, Internet (or other network) software and specialized travel management software. For example, the computing device associated with user 115 can be configured to read a scheduled event from

15   scheduling software such as Microsoft Outlook® and then match that scheduled event with addresses stored in an electronic address book. That is, if the scheduled event was to take place at ACME Corporation, the software could, automatically or otherwise, access the

20   user's address book and determine the address of ACME. Alternatively, the user could directly input the address where the scheduled event is to take place and

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transmit that address to the logistical planning system 105.

Once the location, start time, and duration of the scheduled event are known, that information can then be transmitted through the network 110 to the logistical planning system 105. The logistical planning system 105 could then collect the relevant travel data from the GDS 140, the provider 160, and/or any other relevant location. The logistical planning system 105 can then process that collected information and return transportation options for the scheduled activity to the user.

Referring now to FIGURE 2, there is illustrated a flow chart demonstrating one embodiment of the operation of a logistical planning system 105 constructed in accordance with the principles of the present invention. One skilled in the art, however, can readily recognize that the method described herein can be practiced in various ways and should not be limited to include all of the steps illustrated in FIGURE 2. Furthermore, one skilled in the art can readily recognize that the steps can be practiced in

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virtually any order and that many of the steps can be conducted in parallel.

In operation, the logistical planning system 105 should know a traveler's origin or home location. For example, the logistical planning system 105 should be aware that user's 115 trips should generally originate from Dallas, Texas and generally terminate at Dallas, Texas. This origin location can be received from the user directly and stored at the storage element 135 for later use, or alternatively, this origin location could be sent as part of a bulk transaction for numerous employees of a particular company (step 200).

When the logistical planning system 105 knows a traveler's origin location, the logistical planning system 105 can schedule transportation options by receiving an indication of a scheduled activity (step 205). This indication of the scheduled activity ideally includes a destination, a start time for the event, and a stop time for the event. Alternatively, the indication of the scheduled activity can include a destination, a start time for the event, and a duration of the event.

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Once the logistical planning system 105 is informed of the traveler's activities--including a destination corresponding to those activities--the logistical planning system 105 geo-spacially (or

5   otherwise) defines that destination (step 210) or at least prompts some other party to provide it with such geo-spacial definitions. Next, the logistical planning system 105 can compute a "not later than arrival time" (step 215) and/or a "not earlier than departure time"

10   (step 220) based upon the start time and/or duration of the scheduled activity.   These computed times and geographies subsequently can be used to determine which modes of transportation are most suitable.   For example, if a traveler's destination is over 300 miles,

15   then the air mode of transportation might be selected and the flights most appropriate for the traveler can be identified.

The logistical planning system 105 can then locate airports and/or hotels (or any other establishments)

20   that are near the location of the scheduled activity (step 225).   For example, the logistical planning system 105 could locate hotels within walking distance, within a set distance of the location of the scheduled

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activity or within any other threshold measurement. Similarly, the travel management system could locate airports within, for example, 50 miles of the activity location and/or within a time threshold, such as within

5   90 minutes of the location of the scheduled activity. In one embodiment, the logistical planning system 105 collects proximity information about hotels and airports by accessing an outside system and/or accessing its own internal database.

10   At some point during this process, the logistical planning system 105 computes the driving distance and/or driving time between the traveler's origin location and the location of the scheduled activity. When the driving distance and/or driving time are below

15   certain thresholds, the logistical planning system 105 notifies the traveler that driving is preferable to any other mode of transportation for this scheduled activity (step 230). Accordingly, unless otherwise notified, the logistical planning system 105 does not

20   make transportation reservations for the scheduled activity. However, the logistical planning system 105 still can make hotel reservations if needed.

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Assuming air travel is needed, however, the logistical planning system 105 calculates the ground travel time between the various identified airports and the location of the scheduled activity (or hotel) (step

5   235). (Alternatively, the logistical planning system can identify an alternate mode of transportation, e.g, train, bus, etc., and make all calculations accordingly.) In one embodiment, this calculated ground travel time is used to screen airports that are

10   too far from the activity location. In another, preferred embodiment, the calculated ground travel time is used as a factor in ranking the airports according to their desirability.

In another embodiment, the logistical planning

15   system 105 can add the calculated ground travel time to flight arrival times (step 140). The result of the summation represents the earliest time that the traveler actually could be at the location of the scheduled activity for each particular flight. Thus,

20   the result of the summation is used to determine which departing flights are most appropriate for the traveler (step 245). That is, if the result of the addition of the flight arrival time and the ground travel time, is

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later than the computed "not later than arrival time, that departing flight may be inappropriate for the traveler. As can be appreciated, at this time the logistical planning system 105 may identify numerous

5   flights that are appropriate for the traveler. One particular flight from that list, however, should be ranked highest (i.e., the optimal flight) based upon flight rankings.

After (or even prior or concurrently with) the

10   departing flights have been identified, the logistical planning system 105 identifies potential return (from the perspective point of origin location) flights based upon flight departure times and/or ground travel time between the location of the scheduled activity (or

15   hotel if appropriate) and the airport (steps 250 and 255). Again, numerous flights may be identified as appropriate return flights, but, in one embodiment, only one will likely be ranked as the optimal flight. Those flights not ranked as the optimal flight can be

20   retained as alternative flights. If a traveler desires, he can select one of these alternative flights rather than the optimal flight, or the logistical

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planning system may select one of these flights to arrange the overall "best trip option."

Furthermore, in one embodiment of the present invention, the logistical planning system 105 adds

5   extra time for luggage pick-up and/or rental car pick-up, if necessary. For example, if the scheduled activity requires an overnight stay and a rental car from an off-airport rental car agency, the logistical planning system 105 may add one extra hour to the sum

10   of the ground travel time and the flight arrival/departure time to compensate for luggage pick-up time and rental car pick-up/drop-off time.

In yet another embodiment of the present invention, the departing flight can be scheduled to go

15   to an alternate destination rather than the traveler's origin location. For example, if the traveler has two activities in different locations scheduled in close succession, the flight leaving the first meeting may go directly to an airport near the location of the second

20   activity. The logistical planning system 105 could then compute a third leg returning the traveler from the second activity location to the traveler's origin location. In this embodiment of the present invention,

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the logistical planning system 105 can make necessary arrangements for hotels and ground transportation at the location of the second activity. Additionally, the logistical planning system 105 can determine whether a

5   second flight is even necessary or whether the traveler should instead, for example, drive from the first scheduled activity to the second scheduled activity.

Furthermore, the logistical planning system 105 can identify and rank available ground transportation

10   from the airport to the hotel, from the airport directly to the activity location, and/or between the hotel and the activity location (step 260). For example, the logistical planning system 105 can identify shuttles associated with particular hotels,

15   rental car agencies, and availability of mass transit such as subways and taxis. Furthermore, in one embodiment, the present invention can also identify when no ground transportation is needed because all destinations are within walking distance.

20   Additionally, based upon the length of travel, the start time for the scheduled activity and/or the duration of the scheduled activity, a hotel may or may not be necessary for a particular scheduled activity.

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However, if a hotel is necessary, then the logistical planning system 105 can determine that a hotel is necessary and identify available hotels for the scheduled activity (step 265). As with available

5 flights, available hotels can be ranked according to desirability. For example, the logistical planning system 105 can compare the various travel options with company policies, which may state that hotels can cost a maximum of $100 per night. Thus, the logistical

10 planning system 105 could rank hotels costing over $100 a night as less favorable than a hotel costing under $100 a night.

Furthermore, in one embodiment, the assumption in scheduling hotels is that the traveler will check into

15 the hotel after the scheduled activity. If, however, the flight arrangements bring the traveler to the area of the scheduled activity the night before the scheduled activity, the logistical planning system 105 can assume that the traveler will check into the hotel

20 before the activity.

Although individual components of the trip might be rated as optimal, the overall "best trip option" might use lower ranked options of each trip component

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in planning the entire trip. That is, the logistical planning system 105 collects the rankings for each individual component of the trip (travel, lodging, ground transportation, etc.) and calculates an overall

5   "best trip option" by, for example, maximizing the individual trip component rankings (step 270). For example, assume that the logistical planning system 105 identifies flight A as the optimal flight and a rental car as the optimal ground transportation. However,

10   when flight A and the rental car are considered in combination, the combination is not optimal when compared to flight A and a taxi (the taxi being faster but more expensive than the rental car) because the time used to pick-up the rental car would cause the

15   traveler to miss the scheduled activity while the more expensive taxi would permit on-time arrival. Thus, the logistical planning system 105 would identify flight A and the taxi as the "best trip option" even though the taxi is not the most favorably ranked ground

20   transportation option.

As can be appreciated, rankings for "best trip option" on the individual travel components can be calculated in a variety of ways. For example, factors

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might be "quickest trip" or "cheapest trip." That is, the logistical planning system 105 can most favorably rank the options that keep the traveler away from home the least amount of time. Another factor might be

5   "relaxed trip" wherein the traveler is given a significant cushion before and/or after the scheduled activity. This feature allows the traveler more flexibility and greater assurances that he can be at the scheduled event on time and can stay for a late

10   meeting or an unscheduled event after the scheduled stop time for the activity.

If the traveler approves of the "best trip option" as determined by the logistical planning system 105 (step 270), the logistical planning system 105 can make

15   the necessary reservations for the trip through the GDS 140 (shown in FIGURE 1) or an alternate provider (step 275). However, if the traveler does not approve of the "best trip option," the various lower ranked options for each line item (e.g. air, hotel, and ground) can be

20   displayed for the traveler. The traveler then can manually select the desired travel arrangements. The logistical planning system 105 can be designed not to let the traveler choose any arrangements outside

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company policy or, rather, to merely indicate that the traveler is not traveling within company policy. Additionally, the logistical planning system 105 can indicate that the traveler's selected options are
5 inappropriate for time or other reasons. Moreover, the logistical planning system 105 can require expense codes, excuse codes or management notification before a traveler is allowed to schedule any options that are outside company policy.

10 Referring now to FIGURE 3, there is illustrated an electronic scheduler 300 used in accordance with the principles of the present invention. A traveler can use the electronic scheduler 300 to transmit data to the logistical planning system 105 (shown in FIGURE 1). To
15 utilize the electronic scheduler 300, in one embodiment, the traveler need only enter the scheduled activity and indicate the duration thereof. For example, the traveler could enter ACME at 9:00 and indicate that the meeting lasts until 12:00. This
20 activity information could then be transmitted over the network 110 to the logistical planning system 105. Using that information and possibly a profile for the traveler, the logistical planning system 105 can return

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an itinerary for a complete trip. This itinerary could include the "best trip option."

In conclusion, one embodiment of the present invention provides for a method and apparatus for collecting, managing, and processing travel information in such a way that transportation can quickly and efficiently be planned. In particular, one embodiment of the present invention provides a system and method for receiving an indication of a scheduled activity and arranging travel based upon that scheduled activity and a traveler profile.

Although the present invention generally has been described in relation to travelers and airline flights, one skilled in the art can recognize that the present invention can be used to plan transportation of any object (e.g., cargo, etc.) over any mode of transportation (e.g., train, bus, truck, ship, etc.) or any combination of modes of transportation. For example, the present invention could be used to schedule cargo shipments that include trains, ships, and trucks.

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Those skilled in the art can readily recognize
that numerous variations and substitutions may be made
in the invention, its use and its configuration to
achieve substantially the same results as achieved by
5   the embodiments described herein. Accordingly, there
is no intention to limit the invention to the disclosed
exemplary forms. Many variations, modifications and
alternative constructions will fall within the scope
and spirit of the disclosed invention as expressed in
10   the claims.

WHAT IS CLAIMED:

1   1.   An electronic method for managing
2   transportation from an origin location, the method
3   comprising the steps of:
4   receiving an activity indicator including an
5   activity location and an activity start time;
6   identifying at least a first airport, the
7   first   airport   being   within   a   first   threshold
8   measurement of the activity location; and
9   identifying at least a first departing flight
10   associated with the at least the first airport, the
11   identified at least a first departing flight associated
12   with a flight arrival time and the first departing
13   flight being at least between the origin location and
14   the at least the first airport;
15   wherein the flight arrival time of the at
16   least the first identified departing flight is prior to
17   the activity start time.

1   2.   The electronic method of claim 1, wherein the
2   step of identifying the at least the first airport
3   includes the step of identifying a plurality of
4   airports and wherein the step of identifying the at

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5   least the first departing flight includes the step of

6   identifying a plurality of flights associated with each

7   of the plurality of airports.

1   3.   The method of claim 2, wherein each of the

2   identified plurality of flights is associated with a

3   characteristic data item, the method comprising the

4   steps of:

5   comparing the characteristic data item for

6   each of the identified plurality of flights with a

7   flight preference; and

8   ranking each of the identified plurality of

9   flights according to the flight preference.

1   4.   The method of claim 3, wherein the step of

2   comparing the characteristic data item includes the

3   step of comparing the flight price for each of the

4   identified plurality of flights with a flight price

5   maximum; and wherein the step of ranking each of the

6   identified plurality of flights includes the step of

7   ranking each of the identified plurality of flights

8   according to the comparison of the flight price to the

9   flight price maximum.

1   5.   The electronic method of claim 1, wherein the

2   step of identifying at least the first departing flight

3   includes the steps of:

4   calculating a travel time between the at

5   least the first airport associated with the at least

6   the first departing flight and the activity location;

7   and

8   determining an activity location arrival

9   time, the activity location arrival time indicating a

10   summation of the flight arrival time and the calculated

11   travel time;

12   wherein the determined activity location

13   arrival time is prior to or equivalent to the activity

14   start time.

1   6.   The electronic method of claim 1, wherein the

2   step of identifying at least the first departing flight

3   includes the steps of:

4   calculating a travel time between the at

5   least the first airport associated with the at least

6   the first departing flight and the activity location;

7   and

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8   determining an earliest flight arrival time,

9   the earliest flight arrival time representing the

10 result of subtracting the calculated ground travel time

11 from the activity start time;

12   wherein the arrival time of the at least the

13 first flight is prior to or simultaneous with the

14 determined earliest flight arrival time.

1   7.   The electronic method of claim 1, further

2   comprising the steps of:

3   receiving an activity stop time indicator,

4   the activity stop time indicator indicating a stop time

5   for the activity; and

6   identify at least a first returning flight,

7   the at least the first returning flight associated with

8   a flight departure time and being at least between the

9   at least the first airport and the origin location;

10   wherein the flight departure time of the

11 identified at least the first returning flight is

12 subsequent to the stop time for the activity.

1   8.   The electronic method of claim 7, further

2   comprising the steps of:

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3   determining if the flight arrival time of the

4   identified at least the first departing flight is on a

5   first day and if the flight departure time of the

6   identified at least the first returning flight is on a

7   second day;

8   responsive to determining that the flight

9   arrival time of the identified at least the first

10   departing flight is on the first day and that the

11   flight departure time of the identified at least the

12   first returning flight is on the second day,

13   identifying a plurality of lodging locations within a

14   lodging threshold distance of one of the at least the

15   first airport and the activity location.

1   9.   The method of claim 8, further comprising the

2   step of:

3   reserving at least one of the identified

4   plurality of lodging locations.

1   10. The method of claim 1, wherein the step of

2   receiving an activity indicator includes the step of

3   receiving an address for the activity location.

1   11.   The method of claim 1, wherein the step of

2   identifying at least the first airport includes the

3   step of identifying the at least the first airport, the

4   at least the first airport being within a temporal

5   threshold measurement of the activity location.

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1   12.   A computer system for managing transportation

2   based upon a transportation indicator that includes a

3   location and an arrival start time, the computer system

4   comprising:

5   a processor;

6   a storage device connected to the processor,

7   the storage device for storing instructions executable

8   by the processor;

9   a plurality of instructions stored on the

10   storage   device,   the   plurality   of   instructions

11   configured to cause the processor to:

12   identify at least a first transportation

13   destination, the first transportation destination being

14   within a first threshold measurement of the location;

15   and

16   identify   at   least   a   first   departing

17   option   associated   with   the   at   least   the   first

18   transportation destination, the identified at least a

19   first   departing   option   associated   with   an   option

20   arrival time and the first departing option including

21   transportation between a transportation origin and the

22   first transportation destination;

23   wherein the option arrival time of the

24   at least the first identified departing option is prior

25   to the activity start time.

1   13.   The computer system of claim 12, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   identify   a   plurality   of   transportation

5   origins; and

6   identify   a   plurality   of   transportation

7   options associated with each of the plurality of

8   transportation origins.

1   14.   The computer system of claim 13, wherein each

2   of the identified plurality of transportation options

3   is associated with a characteristic data item and

4   wherein the plurality of instructions are for causing

5   the processor to:

6   compare the characteristic data item for each

7   of the identified plurality of options with an option

8   preference; and

9   identify each of the identified plurality of

10   options that corresponds with the option preference.

1   15.   The computer system of claim 14, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   compare a transportation option price for

5   each of the identified plurality of transportation

6   options with an option price maximum; and

7   identify each of the identified plurality of

8   transportation options that have a flight price below

9   or equivalent to the option price maximum.

1   16.   The computer system of claim 12, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   calculate a travel time between the at least

5   the first transportation destination associated with

6   the at least the first departing option and the

7   location; and

8   determine a location arrival time, the

9   location arrival time indicating a summation of the

10   transportation option arrival time and the calculated

11   travel time.

1   17.   The computer system of claim 12, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   calculate a travel time between the at least

5   the first transportation destination associated with

6   the   at   least   the   first   departing   option   and   the

7   location; and

8   determine an earliest option arrival time,

9   the   earliest   option   arrival   time   representing   the

10   result of subtracting the calculated travel time from

11   the activity start time.

1   18.   The computer system of claim 12, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   identify at least a first returning option,

5   the at least the first returning option associated with

6   a option departure time and being at least between the

7   at least the first transportation destination and the

8   transportation origin;

9   wherein   the   option   departure   time   of   the

10   identified   at   least   the   first   returning   option   is

11   subsequent to a stop time for the activity.

1   19.   The computer system of claim 18, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   determine if the option arrival time of the

5   identified at least the first departing option is on a

6   first day and if the option departure time of the

7   identified at least the first returning option is on a

8   second day;

9   responsive to determining that the option

10   arrival time of the identified at least the first

11   departing option is on the first day and that the

12   option departure time of the identified at least the

13   first returning option is on the second day, identify

14   a plurality of lodging locations within a lodging

15   threshold distance of the location.

1   20.   The computer system of claim 19, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   reserve at least one of the identified

5   plurality of lodging locations.

1   21.   The computer system of claim 12, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   receive an address for the location.

1   22.   The computer system of claim 12, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   rank the at least the first transportation

5   origin according to its temporal distance from the

6   location.

1   23.   The computer system of claim 12, further

2   comprising:

3   a network connected to the processor;

4   a remote device connected to the network, the

5   remote device for providing the transportation

6   indicator to the processor.

1   24.   The computer system of claim 23, wherein the

2   remote device is a wireless device.

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1   25.   The computer system of claim 12, wherein the

2   transportation destination is one of an airport, a bus

3   station, a train station, and a shipping terminal.

1   26.   The computer system of claim 12, wherein the

2   transportation option is an airline option.

1   27. A computer system for planning

2 transportation, the computer system comprising:

3   a processor for executing instructions;

4   a first storage device for storing an

5 activity indicator, the activity indicator indicating

6 at least an activity time and an activity location;

7   a second storage device connected to the

8 processor, the storage device for storing instructions

9 that are executable by the processor; and

10   a plurality of instructions stored on the

11 second storage device, the plurality of instructions

12 for causing the processor to:

13   identify a plurality of transportation

14 options wherein each of the plurality of transportation

15 options arrives at the activity location prior to the

16 activity time; and

17   reserve a first of the plurality of

18 transportation options.

1   28. The computer system of claim 27, wherein the

2 activity location is a cargo destination and the

3 activity indicator is a cargo arrival time.

1   29.   The computer system of claim 27, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   apply a transportation rule to the plurality

5   of transportation options, thereby identifying the

6   first of the plurality of transportation options.

1   30.   The computer system of claim 27, further

2   comprising:

3   a network connected to the processor; and

4   a remote device connected to the network, the

5   remote device for providing the activity indicator to

6   the processor.

1   31.   The computer system of claim 27, wherein the

2   plurality of instructions are for causing the processor

3   to:

4   automatically   identify   a   plurality   of

5   transportation options wherein each of the plurality of

6   transportation options arrives at the activity location

7   prior to the activity start time.

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1   32. An electronic signal from an electronic

2   device, the electronic signal capable of activating

3   another device, wherein the another device is

4   responsive to the signal to thereby perform steps

5   comprising:

6   identifying at least a first airport, the

7   first airport being within a first threshold

8   measurement of the activity location; and

9   identifying at least a first departing flight

10   associated with the at least the first airport, the

11   identified at least a first departing flight associated

12   with a flight arrival time and being at least between

13   the origin location and the at least the first airport;

14   wherein the flight arrival time of the at

15   least the first identified departing flight is prior to

16   the activity start time.

1   33. The electronic signal of claim 29, wherein

2   the another device is responsive to the signal to

3   thereby perform steps comprising:

4   calculating a travel time between the at

5   least the first airport associated with the at least

6   the first departing flight and the activity location;

7   and

8   determining an activity location arrival

9   time, the activity location arrival time indicating a

10   summation of the flight arrival time and the calculated

11   travel time;

12   wherein the determined activity location

13   arrival time is prior to or equivalent to the activity

14   start time.

1   34. The electronic signal of claim 29, wherein

2   the another device is responsive to the signal to

3   thereby perform steps comprising:

4   calculating a travel time between the at

5   least the first airport associated with the at least

6   the first departing flight and the activity location;

7   and

8   determining an earliest flight arrival time,

9   the earliest flight arrival time representing the

10   result of subtracting the calculated ground travel time

11   from the activity start time;

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12   wherein the arrival time of the at least the

13   first flight is prior to or simultaneous with the

14   determined earliest flight arrival time.

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1   35. An electronic method for planning

2   transportation, the electronic method comprising the

3   steps of:

4   receiving an activity indicator including a

5   plurality of transportation parameters;

6   developing a proposed transportation plan

7   corresponding to the received plurality of

8   transportation parameters;

9   transmitting at least an indication of the

10   proposed transportation plan;

11   receiving an indication of approval of the

12   proposed transportation plan; and

13   responsive to receiving the indication of

14   approval, arranging transportation according to the

15   transportation plan.

1   36. The electronic method of claim 35, wherein

2   the step of receiving an activity indicator includes

3   the step of receiving a scheduled activity from a

4   personal information manager.

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ABSTRACT OF THE INVENTION

An electronic method for managing transportation from an origin location, the method including the steps of: receiving an activity indicator including an activity location and an activity start time; identifying at least a first airport (or other origin location), the first airport being within a first threshold measurement of the activity location; and identifying at least a first departing flight (or other mode of transportation) associated with the at least the first airport, the identified at least a first departing flight associated with a flight arrival time and being at least between the origin location and the at least the first airport; wherein the flight arrival time of the at least the first identified departing flight is prior to the activity start time.
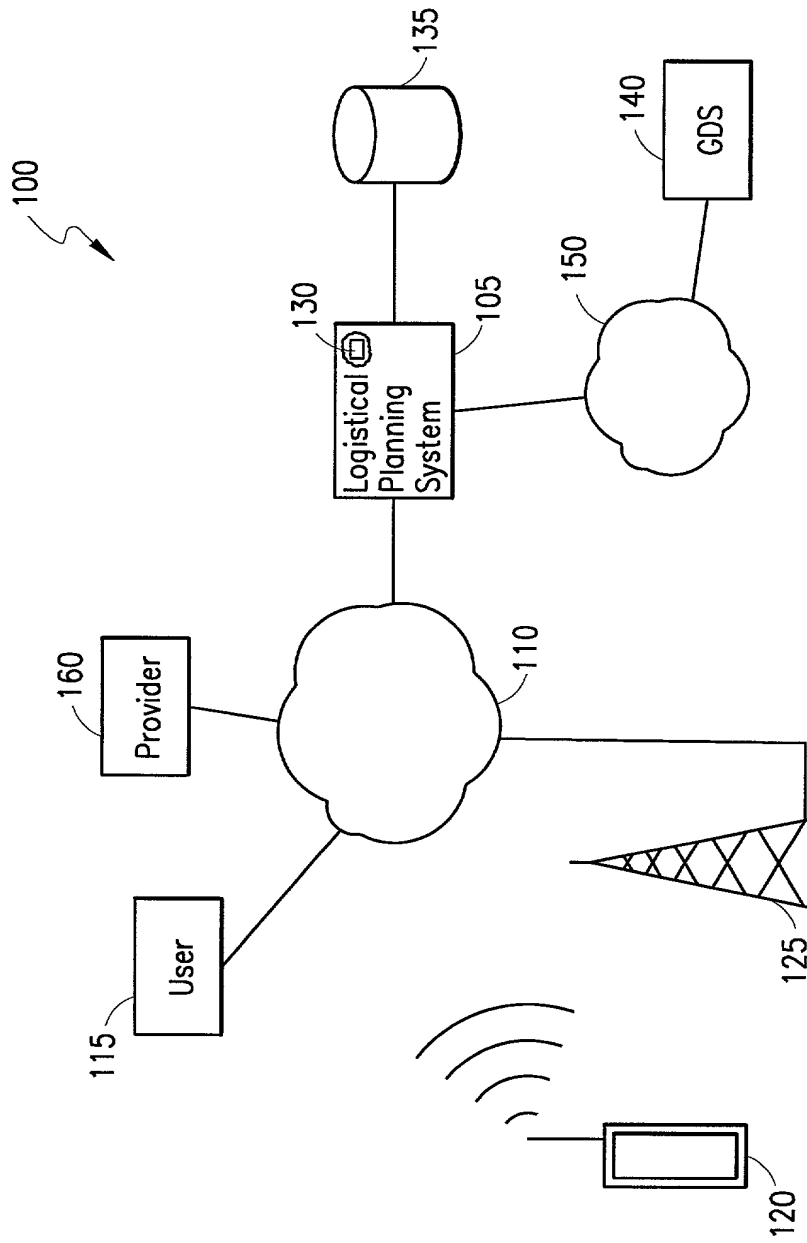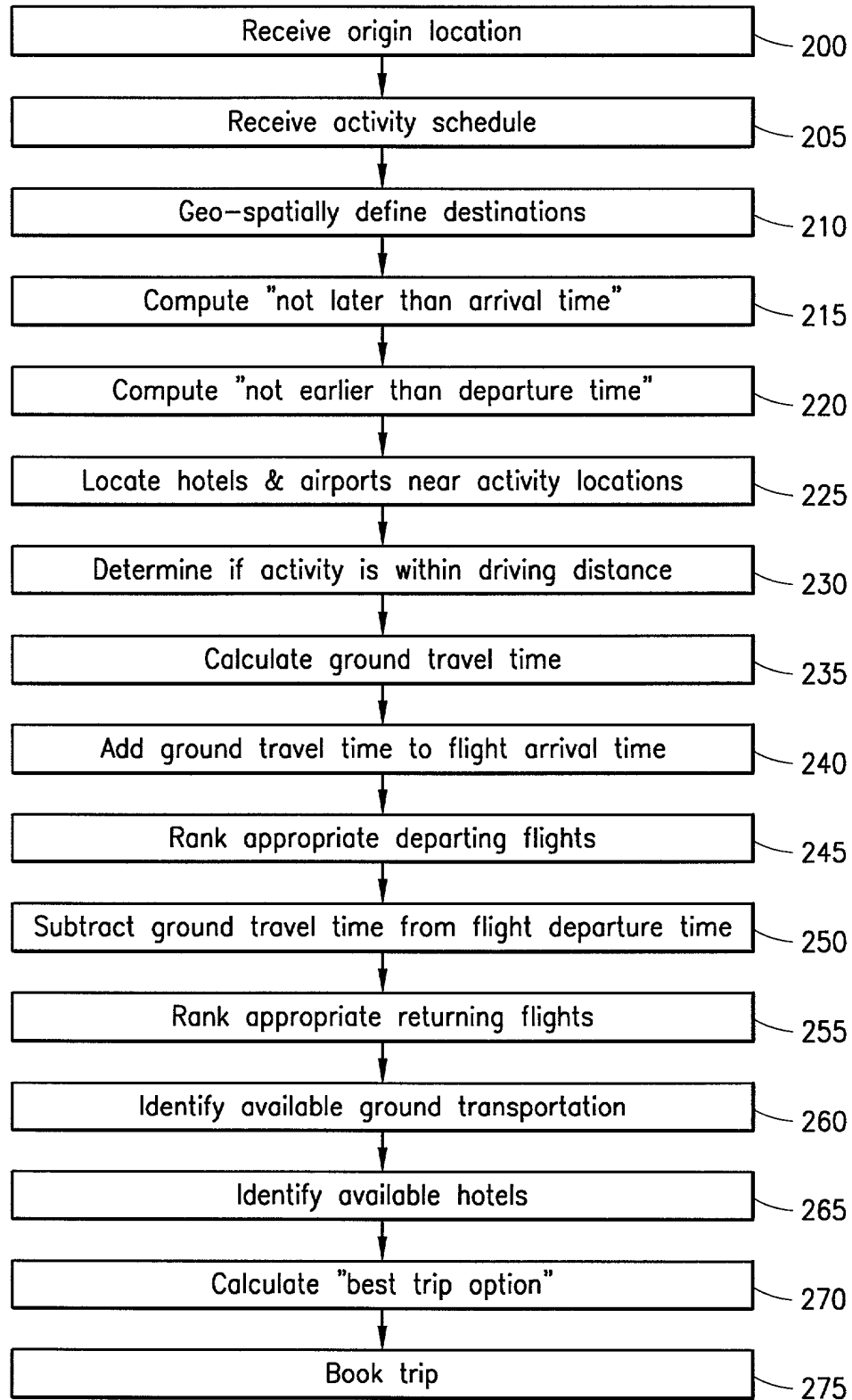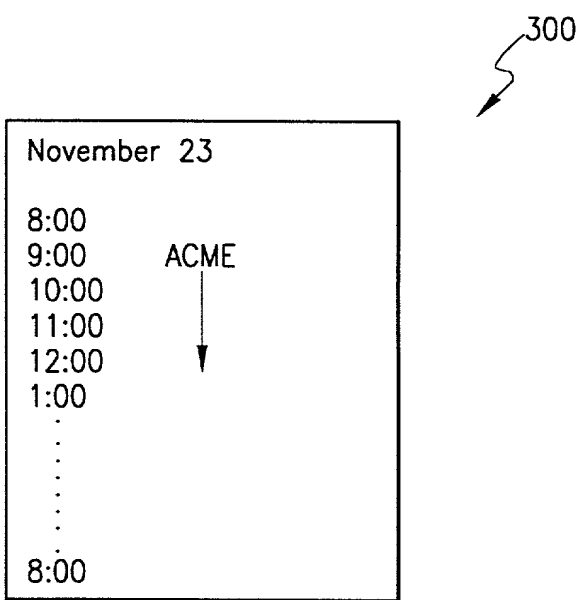
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FIG. 1

Receive origin location	— 200
Receive activity schedule	— 205
Geo-spatially define destinations	— 210
Compute "not later than arrival time"	— 215
Compute "not earlier than departure time"	— 220
Locate hotels & airports near activity locations	— 225
Determine if activity is within driving distance	— 230
Calculate ground travel time	— 235
Add ground travel time to flight arrival time	— 240
Rank appropriate departing flights	— 245
Subtract ground travel time from flight departure time	— 250
Rank appropriate returning flights	— 255
Identify available ground transportation	— 260
Identify available hotels	— 265
Calculate "best trip option"	— 270
Book trip	— 275

FIG. 2

November 23

8:00
9:00   ACME
10:00
11:00
12:00
1:00
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8:00

FIG. 3